

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-28 (Canceled).

Claim 29 (Previously Presented): A process for the continuously operated distillation purification of methanol, wherein the methanol is used as a solvent in a synthesis of propylene oxide by reaction of a hydroperoxide with propylene, wherein methoxypropanols formed as by-products from the reaction of the propylene oxide with the methanol are separated off simultaneously, wherein the solvent mixture obtained in the synthesis of the propylene oxide is separated in a dividing wall column into a low-boiling fraction comprising methanol, an intermediate-boiling fraction comprising the methoxypropanols as an azeotrope with water and a high-boiling fraction comprising water and propylene glycol, and

wherein the propylene oxide is prepared by a process comprising at least (i) to (iii)

- (i) reacting the hydroperoxide with propylene to form a mixture,
- (ii) separating the unreacted hydroperoxide from the mixture resulting from (i),
- (iii) reacting the hydroperoxide which has been separated off in (ii) with propylene,

wherein an isothermal fixed-bed reactor is used in (i), an adiabatic fixed-bed reactor is used in (iii), and a separation apparatus is used in (ii) and wherein hydrogen peroxide is used as hydroperoxide, and wherein the hydroperoxide and the propylene are reacted in the presence of a heterogeneous catalyst..

Claim 30 (Currently Amended): A process for the continuously operated distillation purification of methanol, wherein the methanol is used as a solvent in a synthesis of propylene oxide by reaction of a hydroperoxide with propylene, wherein methoxypropanols

formed as by-products from the reaction of the propylene oxide with the methanol are separated off simultaneously, wherein the solvent mixture obtained in the synthesis of the propylene oxide is separated in a dividing wall column into a low-boiling fraction comprising methanol, an intermediate-boiling fraction comprising the methoxypropanols as an azeotrope with water and a high-boiling fraction comprising water and propylene glycol, and

wherein the dividing wall column comprises and is configured as two thermally coupled columns,

wherein the solvent mixture is separated into the low-boiling, intermediate-boiling and high-boiling fractions in a column downstream of ~~[[the]]~~ a feed column, or

the low-boiling and high-boiling fractions are taken off from the solvent mixture in the ~~[[a]]~~ feed column and the intermediate-boiling fractions is taken off in the downstream column, or

the high-boiling fraction is taken off from the solvent mixture in the feed column and the low-boiling and the intermediate-boiling fractions are taken off in downstream column, or

the low-boiling fraction is taken off from the solvent mixture in the feed column and the intermediate-boiling and high-boiling fractions are taken off in the downstream column.

Claim 31 (Previously Presented): The process as claimed in claim 29, wherein the dividing wall column has from 15 to 60 theoretical plates.

Claim 32 (Previously Presented): The process as claimed in claim 29, wherein the distillation pressure is from 1 to 15 bar and the distillation temperature is from 30 to 140°C, in each case measured at the top of the column.

Claim 33 (Previously Presented): The process as claimed in claim 29, wherein the heterogeneous catalyst comprises the zeolite TS-1.

Claim 34 (Previously Presented): The process as claimed in claim 30, wherein the liquid stream taken from the bottom of one of the coupled columns is partly or completely vaporized before it is passed to the other column, and the gaseous stream taken off at the top of one of the coupled columns is partly or completely condensed before it is passed to the other column.

Claim 35 (Previously Presented): The process as claimed in claim 30, wherein the stream taken from the bottom of one of the coupled columns is partly or completely vaporized before it is passed to the other column, or the stream taken off at the top of one of the coupled columns is partly or completely condensed before it is passed to the other column.

Claim 36 (Previously Presented): The process as claimed in claim 30, wherein the propylene oxide is prepared by a process comprising at least (i) to (iii)

- (i) reacting the hydroperoxide with the propylene to form a mixture,
- (ii) separating the unreacted hydroperoxide from the mixture resulting from (i),
- (iii) reacting the hydroperoxide which has been separated off in (ii) with propylene,

wherein an isothermal fixed-bed reactor is used in (i), an adiabatic fixed-bed reactor is used in (iii), and a separation apparatus is used in (ii) and wherein hydrogen peroxide is used as hydroperoxide, and wherein the hydroperoxide and the propylene are reacted in the presence of a heterogeneous catalyst.

Claim 37 (Previously Presented): The process as claimed in claim 36, wherein the heterogeneous catalyst comprises the zeolite TS-1.